

# Collaborating with Partners for Broadband Expansion



## College and Career Ready

**That's our goal.**

The Department of Public Instruction is the state agency that advances public education and libraries in Wisconsin. Our goal is to ensure **every child** graduates ready for further education and the workplace.

**April 29, 2021**

<https://dpi.wi.gov/broadband>

5:00



WISCONSIN DEPARTMENT OF  
PUBLIC INSTRUCTION

Carolyn Stanford Taylor, State Superintendent

# The Problem

Ensuring every Wisconsin K-12 student has access to broadband for learning purposes where they live.



# Digital Equity Gap Efforts

- Resources for Families
- Digital Equity Dashboards and Maps
- Digital Learning Bridge - Internet Access Resources
- Digital Equity Gap Data Collection
- Speed Test campaign



# Families & Students

## Families & Students

Family Resources for  
Learning during COVID-19

Access to Technology

Grades and Graduation

Learning at Home

School Safety and  
Mental Health

Special Education

FAMILIES & STUDENTS / FAMILY RESOURCES FOR LEARNING DURING COVID-19 / ACCESS TO TECHNOLOGY

## Access to Technology



If you need support with access to technology, resources are available on the [DPI's Broadband page](#).

For those who do not have Internet access at home, The Public Instruction Commission created the Internet and Phone Helpline number 1-800-359-3595, designed to help families explore connectivity options.

Additionally, PSC has created an [interactive drive-up public Wi-Fi map](#) which provides the locations to free, public Wi-Fi sites.

# Digital Equity Gap Data Can Be Used To:

- Ensure you are able to track and support the needs of every student
- Identify possible Internet providers that can serve a student location
- Provide local community partners with critical data needed for broadband grant applications
- Advocate and plan for broadband investments in your community
- Fulfill any state or federal reporting requirements associated with CARES, e-Rate, or other funding



# Secure Digital Equity Dashboard



WISEdash  
Tools

Student Search Schools **Digital Equity** Presentation Mode

Digital Equity

Filter Data

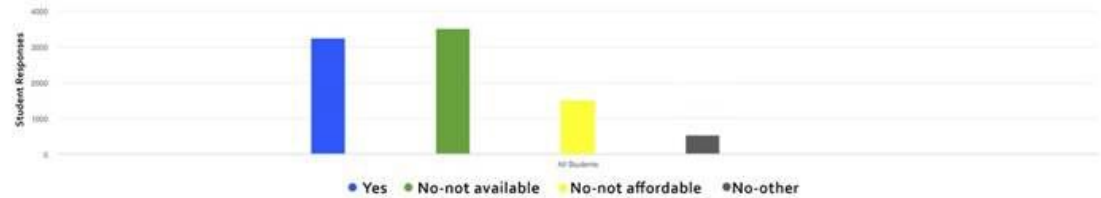
Menomonee Grove 2020-21

Digital Equity Dashboard Help

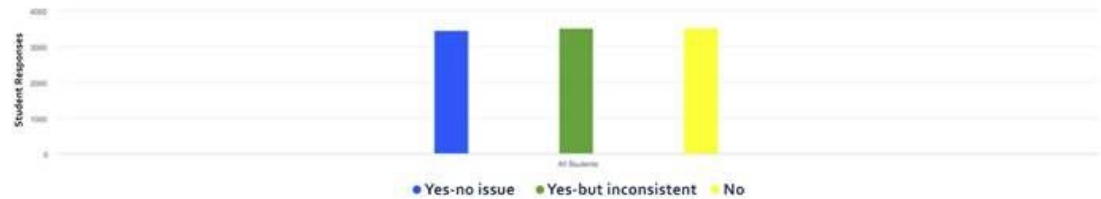
2020-2021  
Student Responses  
Informational

707

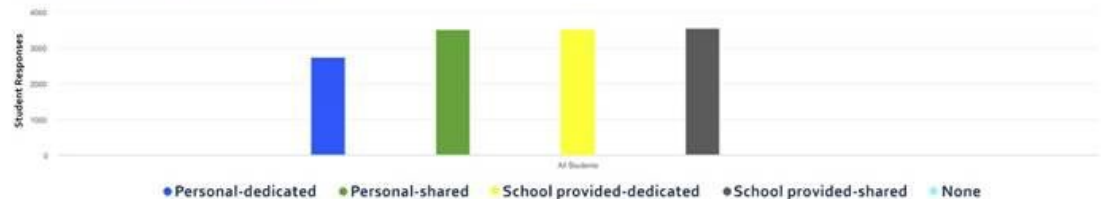
Internet Access in Residence by [All Students]



Internet Performance by [All Students]



Device Access in Residence by [All Students]



# WISEdash Public Digital Equity Dashboard

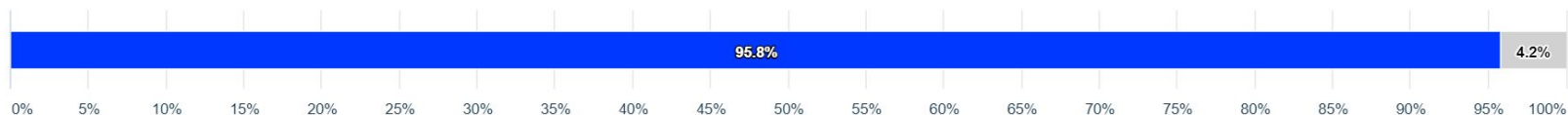


WISEdash Public Portal

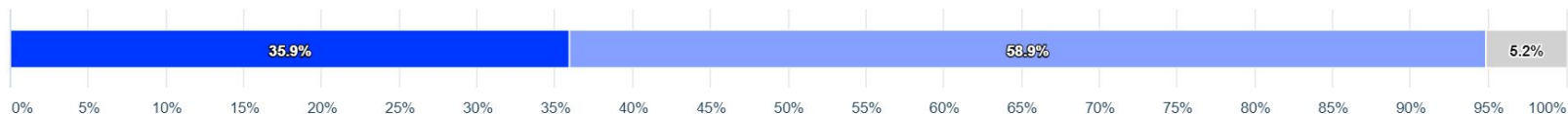
[Home](#)[Digital Equity](#)[ESSA](#)[Student Engagement](#)[State Tests](#)[Graduation](#)[School Information](#)[Downloads](#)[Help](#)

## Digital Equity

### 2020-21 Public School Students With Confirmed Internet Access (of Students Responded)



### 2020-21 Public School Students With Confirmed Device Access (of Students Responded)



# Home Internet Access Survey - Dashboard

## Wisconsin Digital Equity - Home Internet Access Survey

Wisconsin Department of Public Instruction



Access

Performance



### Internet Access in Primary Residence

Wisconsin, 2020 - 2021 School Year

#### About the Data

This dashboard shows the district breakdown of students without the Internet in their primary residence. Data are current as of **February 9, 2021** and will be updated periodically.

Only districts reporting having students without home internet access will appear in the district list on the right hand side of the page.

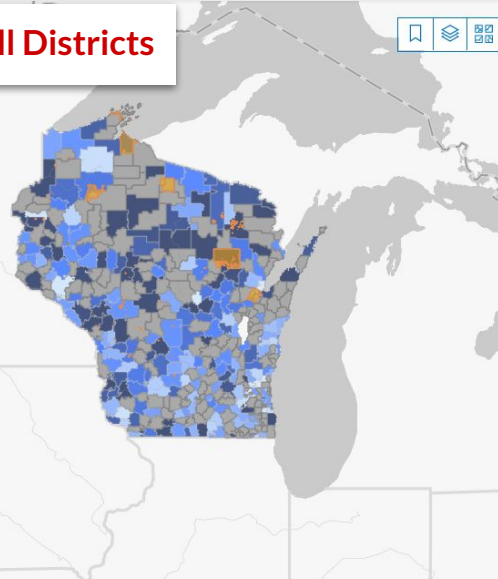
Collecting whether students have Internet access at home is part of the [digital equity collection](#), which is intended to collect data to help address inequity in Internet access and virtual learning capabilities. Statewide digital equity data can be found on the [WISEdash Public Portal](#).

#### About the Map

View the map in full-screen by clicking the expand button located in the upper-right corner of the map frame.

#### Legend

[View All Districts](#)



Select District -->

Select a District None Selected

#### Tribal Lands (DNR)



#### Students without Internet Access in Residence



Percent of Students without Internet Access



#### Districts Reporting

267

out of 421 districts

#### Percent of Students\* without Home Internet Access by School District

See Response Data Aggregated by District

\* percentages are out of total number of student respondents for survey question on internet access, not total number of students enrolled for that district



# ISP Coverage by District - Dashboard



Internet Service Provider Coverage by Wisconsin School District

Select District -->

Select a school district

Madison Metropolitan



## Using the dashboard

1. Select a Wisconsin public school district using the dropdown in the upper right corner of the page.

This will cause the map to pan and zoom to the selected district.

The map will only show Internet Service Providers (ISPs) that cover the territory within the selected district. The list to the right of the map will also filter to show the same information.

Each item will typically have the following information:

Internet Service Provider name

| Coverage Type

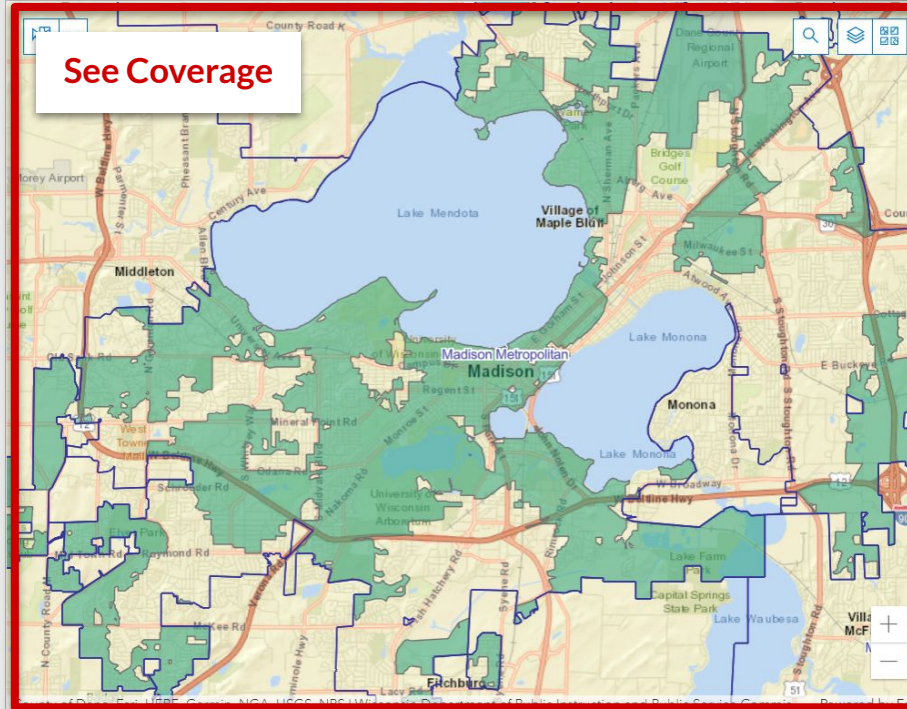
Percentage of district covered by ISP

2. Select an ISP from the filtered list.

## About the Data


The maps displays areas of advertised coverage data in Wisconsin. Access data are retrieved from internet providers and the Federal Communications Commission's Form 477. Data from providers may be current up to December 31, 2019. Data from

See Coverage



## Internet Service Providers (ISP)

 covers 10.767% of Madison Metropolitan

 T-Mobile (Mobile Wireless) | Mobile Wireless covers 100% of Madison Metropolitan

 United States Cellular Corporation | Fixed Wireless covers 44.848% of Madison Metropolitan

 United States Cellular Corporation | Mobile Wireless covers 100% of Madison Metropolitan

Select ISP

 | Mobile Wireless covers 100% of Madison Metropolitan

 Viasat Inc | Satellite covers 100% of Madison Metropolitan

Number of ISPs

 19



# Hogwarts SD

0% upgraded internet

0% upgraded device



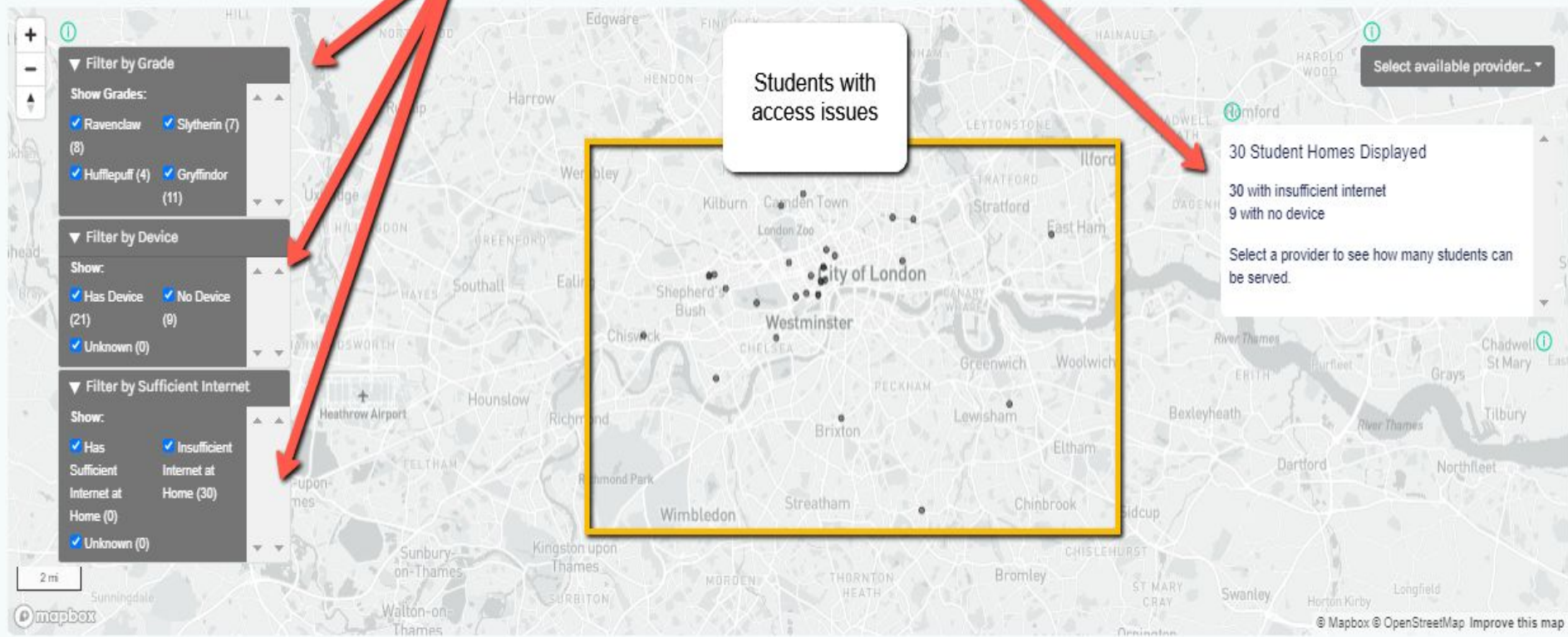
☒ Student Homes

Filter by grade, device access and sufficient internet

Summary of students

Download Service Provider Coverage Options

Based on addresses without access download service providers available for address



<https://cesapurchasing.org/digital>



INTERNET



HARDWARE



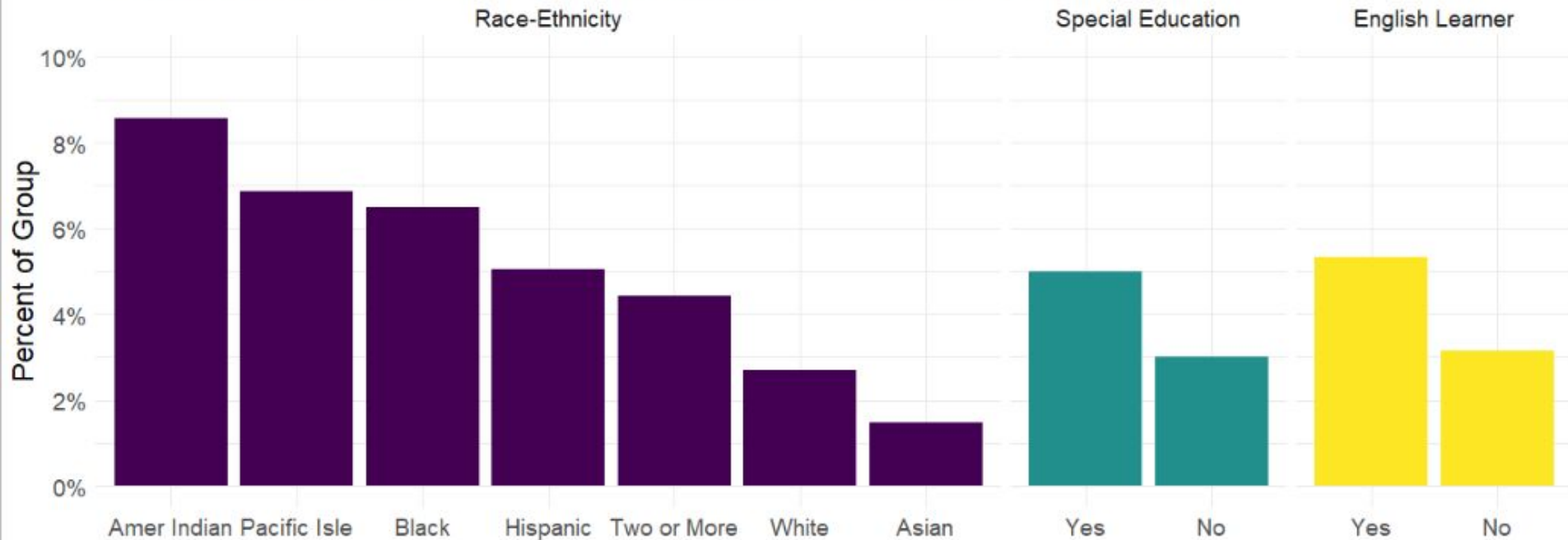
SOFTWARE

# Digital Equity Data Reported

- 300 LEAs reporting out of 449 (67%)
- 322,500 students reported out of 855,000 (38%)
- Statewide estimated student impacts
  - 24,000 - without access (14k no provider, 10k not affordable)
  - 13,000 - school providing temporary access
  - 28,000 - cannot stream video for learning



## Do you have access to the Internet in your residence? Response = No



# Internet Performance by Internet Type

	Residential Broadband	Cellular Network	School Provided Hot Spot	Satellite	Dial-up	Other
No	1%	10%	9%	6%	8%	6%
Yes - But not consistently	15%	42%	63%	51%	58%	32%
Yes - No issues	84%	48%	28%	43%	34%	62%

\* "Can you stream video for learning on your primary learning device?"



# What other data are needed? Speeds



NDT Statistics by School District (WI)



Share



Jan 1, 2021 - Feb 28, 2021

State: US-WI

(1)

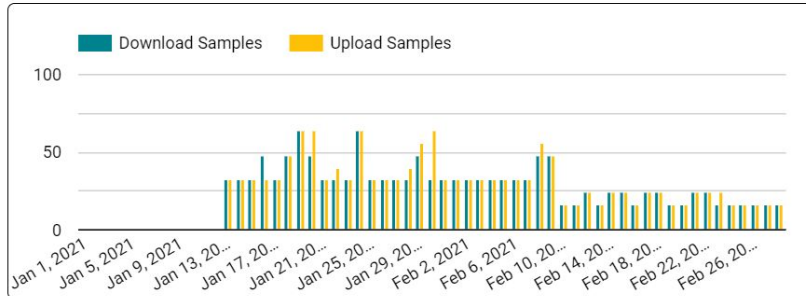
Census - Rural / Urban

District: Abbotsford

(1)

Providers

## # Samples by District



## Download



Abbotsford

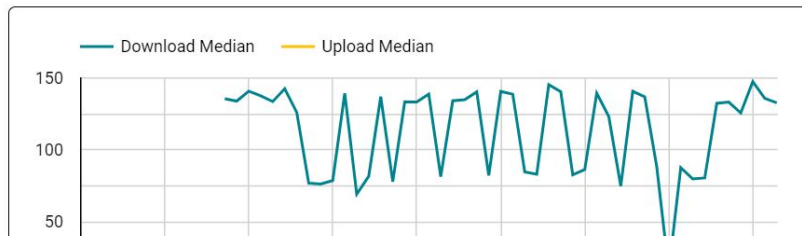
## Upload



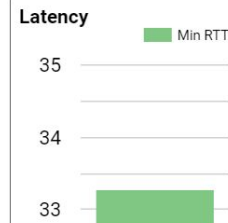
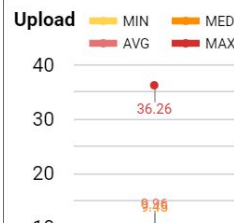
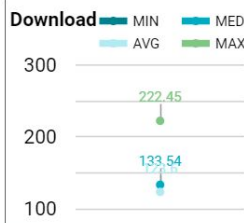
Abbotsford

## Overall Statistics

### Performance - Median by Day (Mbps)



### Performance - Estimated Descriptive Statistics (Mbps)



# Broadband Expansion

- Building Local Partnerships
- Shared Vision/Project
- Pool Resources
- Broadband Funding
  - [Quick Reference Guide for Schools](#)
  - [BCPL Trust Fund Loans](#)



# Fort Atkinson

SCHOOL DISTRICT OF

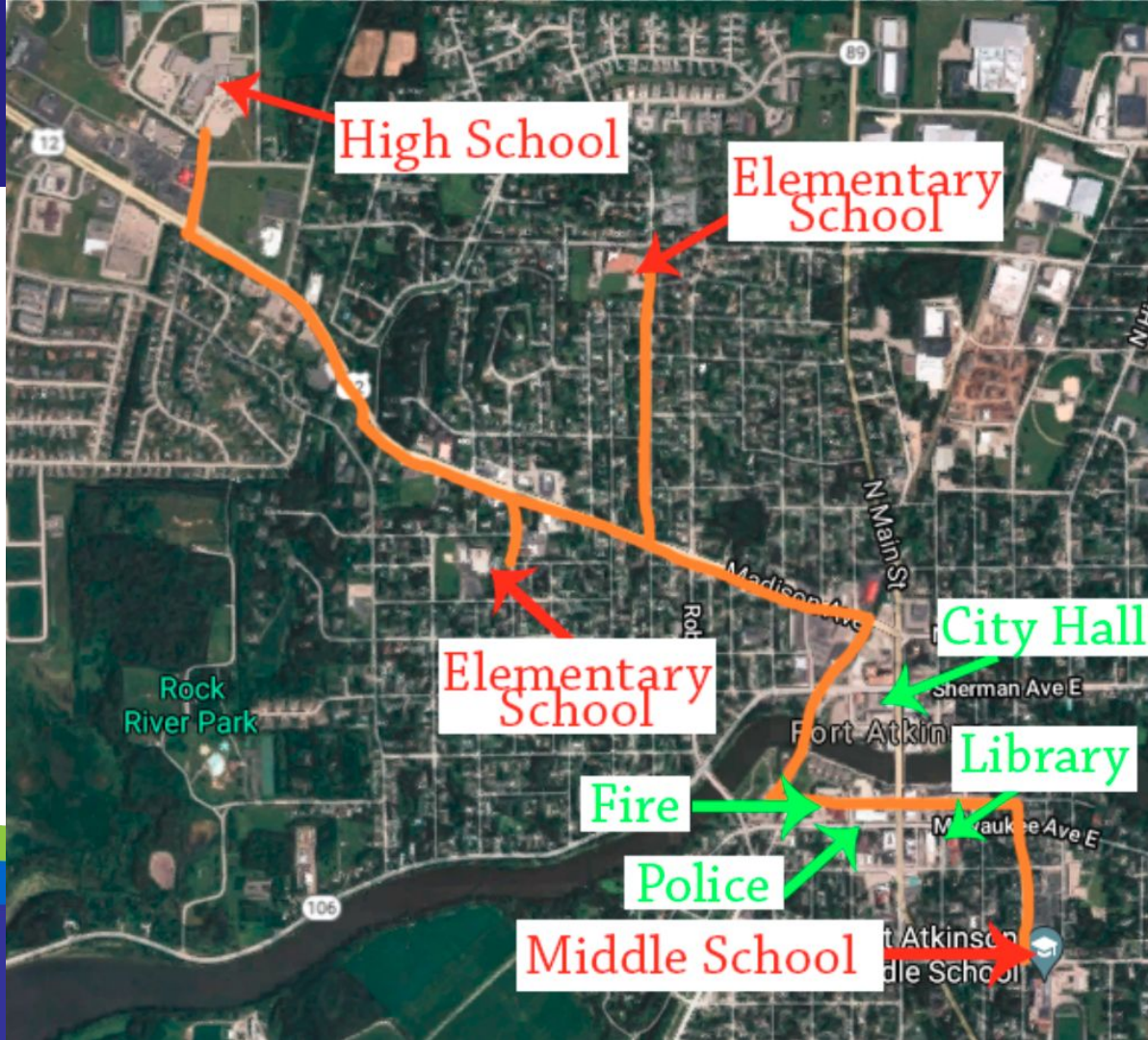


F O R T • A T K I N S O N

DJ Scullin,  
[dj@fortschools.org](mailto:dj@fortschools.org)

**Project Summary: Self-provisioned fiber build between 4 schools in town using E-rate funds. Partnered with the City of Fort Atkinson for a Community Area Network dubbed “FASTR” (Fort Atkinson Shared Technical Resources).**





# Fort Atkinson

SCHOOL DISTRICT OF



F O R T • A T K I N S O N

DJ Scullin,  
[dj@fortschools.org](mailto:dj@fortschools.org)

- Leaned on the DPI
- Used Education Superhighway RFP Template (linked below)
- 3 Bids ranging from \$305,000 to almost \$500,000
- Call local construction companies (The ones that don't know about E-rate)
- USAC requested every email between bidders (Be aware)
- Once we got our FCDL, we put the construction company in contact with our partner (City/County/ISP/Businesses)
- We use our city water people to locate our fiber (Diggers Hotline)
  - They're already in the area locating other assets in the ground

[RFP Template](#) | [Pricing Worksheet](#)



# Fort Atkinson

SCHOOL DISTRICT OF



F O R T • A T K I N S O N

DJ Scullin,  
[dj@fortschools.org](mailto:dj@fortschools.org)

**Phase 1** - School District build with upsized fiber counts that the city owns (completed Summer 2020)

**Phase 2** - Utilizing CARES funds, city is extending the network to the south side of town to connect Parks/Rec, waste-water treatment building, water tower, and the business park (summer 2021). We will likely partner with WIN to provide internet access to the city and any businesses that wish to join the network.

- WIN connection can be utilized as backup to the school district
- Hoops we'll need to jump through to allow the city to legally be able to failover to our E-rate funded Wiscnet connection in the event of an outage
- Opens the doors for fixed wireless solutions on our water tower

# Northland Pines



Harlan Leusink,  
[hleusink@npsd.k12.wi.us](mailto:hleusink@npsd.k12.wi.us)

- The Northland Pines School District covers roughly 500 square miles.
- We have three campuses in the communities of Eagle River, Saint Germain, and Land O' Lakes.
- Prior to our fiber project, we had to use VPN connections to network our three sites.



# Northland Pines School District Project

- Project Description:
  - **Provider:** ChoiceTel
  - **Partner:** Northland Pines School District
  - **Project:**
    - Build fiber connection from Northland Pines main campus to St. Germain Elementary School (30 miles)
    - Run fiber past 220 residential and 15 business partners



# Northland Pines School District Project

- Project cost:
  - Total project cost: \$250,000
  - Grant amount: \$150,226
  - ChoiceTel cost: \$0
  - Northland Pines SD cost: \$80,000
  - Contribution from local businessperson: \$20,000
- ChoiceTel will own the fiber and has the option to connect to homes along the fiber path
- Northland Pines receives 20 year lease (IRU) for 6 fiber strands.



# Town of Drammen

Mark Zuber, Clerk

[TownofDrammen@outlook.com](mailto:TownofDrammen@outlook.com)



# Town of Drammen Project

- Public Service Grant, applied for in December 2020, awarded to Tri-County Communications and 24-7 Telcom cooperatives
- Projected to cost \$2,898,200.00
- Work will begin Summer 2021 and hopefully be completed in later 2023
- Tri-County Communications will work in the area east of Highway 37
- 24-7 Telcom will work the west side of Highway 37
- Project consists of 58 miles of fiber to the home serving approximately 278 underserved locations
- Thank you to Marshfield Clinic Health System(\$15,000) and Eau Claire Energy Cooperative(\$20,000) for their generous contributions



# Town of Drammen Project

- Tri-County Communications – Total project of \$1,478,800.00
  - Grant money \$739,400.00
  - TCC contribution \$482,900.00
  - Town of Drammen \$236,500.00
  - Eau Claire Energy Coop \$20,000.00
- 24-7 Telcom - Total project of \$1,419,400.00
  - Grant money \$709,700.00
  - TCC contribution \$346,200.00
  - Town of Drammen \$363,500.00



# Town of Drammen Project

- Financial Contributors
  - 24-7 Telcom Cooperative, Downsville, WI, Tri-County Communications Cooperative, Strum, WI
  - Marshfield Clinic Health System, Marshfield, WI, Eau Claire Energy Cooperative, Fall Creek, WI
- Supporting Contributors
  - Donald D Mowry, Emeritus Professor of Social Work UWEC – Community Leadership Course- Digital Literacy
  - Eau Claire Broadband Committee



# Taylor County



Michael Bub,  
[michael.bub@co.taylor.wi.us](mailto:michael.bub@co.taylor.wi.us)  
Dennis Hinderliter,  
[hindede@medford.k12.wi.us](mailto:hindede@medford.k12.wi.us)

- ❖ Currently over 50% of the Taylor County residents have little or or no access to High Speed Internet.
- ❖ The decision was made to build a Middle Mile Network. The County Board approved 9.5 million dollars for the project.
- ❖ Taylor County will be connecting 31 school, county, city, township sites via fiber.

# Taylor County



- ❖ **Our network will consist of nearly 80 miles of fiber.**
  - A combination of fiber to the home and fiber to towers will be used to connect residents to the network.
  - Fixed wireless devices will be used on towers to reach last mile customers
- ❖ **The Medford School District by using E-rate and connecting to our network are projecting to reduce their data connection cost by 50%**

# Taylor County



- ❖ WANRack the company we signed a contract with, will be marketing our network to additional ISP's to serve our residents and businesses.
- ❖ The dark fiber on the network will be sold / leased to 3rd parties which will provide income to Taylor County.
- ❖ The income from our network will be used to pay back the County for the 9.5 million dollar loan.

# Wisconsin Public Service Commission



Jaron McCallum,  
[jaron.mccallum@wisconsin.gov](mailto:jaron.mccallum@wisconsin.gov)

**Broadband Expansion Grant Program:** to encourage the deployment of advanced telecommunications capability in underserved areas of the state

**Eligibility:** Applicant and Location

**Priority Factors:** Matching Funds, Public/Private Partnerships, Existing Broadband Services, Project Impact, Scalability, Economic Impact, and Not Delaying Service to Adjacent Areas



# Wisconsin Public Service Commission



Jaron McCallum,  
[jaron.mccallum@wisconsin.gov](mailto:jaron.mccallum@wisconsin.gov)

**Emergency Broadband Benefit (FCC):** Offers temporary discounts of up to \$50 per month (\$75 on Tribal Land) off of eligible household's internet bills

## American Rescue Plan Act

- Coronavirus Capital Projects Fund: Treasury - \$10 Billion
- Emergency Connectivity Fund: FCC - \$7.2 Billion
- Coronavirus State and Local Fiscal Recovery Funds: Treasury - \$350 Billion
- Homeowner Assistance Fund: Treasury - \$10 Billion



# Questions?

- Thank you to all of our presenters.
- Questions?
- Recording: [dpi.wi.gov/broadband](http://dpi.wi.gov/broadband)
- Contact information on slides for each presenter if you would like more information

